

Patent Abstracts of Japan

PUBLICATION NUMBER

11324736

PUBLICATION DATE

26-11-99

APPLICATION DATE

15-05-98

APPLICATION NUMBER

10133808

APPLICANT:

MITSUBISHI ELECTRIC CORP;

INVENTOR: SUGIYAMA TAKESHI;

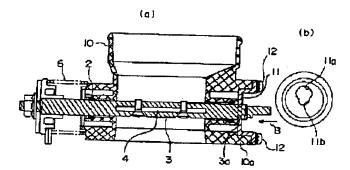
INT.CL.

: F02D 9/10

TITLE

: AIR FLOW CONTROLLER FOR

INTERNAL COMBUSTION ENGINE



ABSTRACT: PROBLEM TO BE SOLVED: To prevent lowering of retention force of an intake pipe to a retainer, to prevent deformation of the intake pipe, and to improve installing workability of the retainer to the intake pipe.

> SOLUTION: An air flow controller for an internal combustion engine comprises an intake pipe 10 made of a synthetic resin, a throttle valve shaft 3 rotatably borne with bearing parts 2 orthogonal to an axial direction of the intake pipe 10, a throttle valve 4 which is fixed to the throttle valve shaft 3 and adjusts an air flow rate in the intake pipe 10 by rotation of the throttle valve shaft 3, a retainer 11 which is locked in a groove part 3a annularly formed at an end of the throttle valve shaft 3 around its outer circumference and prevents an axial movement of the throttle valve shaft 3, and screws 12 fixing the retainer 11 to the intake pipe 10.

COPYRIGHT: (C)1999,JPO